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Federal Communications Commission
Office of the Secretary

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

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| In the Matter of | ) | |
| | ) | |
| Proposed Amendment of Parts 2, 21 | ) | RM-8004 |
| 25, and 94 of the Commission's | ) | |
| Rules to Accommodate Common Carrier | ) | |
| and Private Operational Fixed | ) | |
| Systems in Bands Above 3 GHz | ) | |

ORIGINAL
FILE

OPPOSITION OF
GE AMERICAN COMMUNICATIONS, INC.

GE American Communications, Inc. ("GE Americom") hereby files in opposition to the petition for rulemaking filed by Alcatel Network Systems ("ANS") insofar as this proposes a reallocation and rechannelization of the 4 GHz band and particularly the frequencies between 3.7 GHz and 4.2 GHz, which are currently used by C-band domestic satellites to downlink their signals to their customers. ANS's petition is unduly duplicative of the orderly consideration of the question of the relocation of 2 GHz operations that the Commission already has underway and, if adopted, will have an adverse impact upon the hundreds of millions of dollars in embedded investment by users in C-band satellite services. In addition, ANS's proposals make coordination between fixed operations and satellite services even more difficult than it already is, delaying the prompt initiation of services to users.

GE Americom is a pioneer in domestic satellite communications. Its current fleet includes five C-band satellites, and GE Americom will shortly be launching two more

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such satellites. These satellites carry a wide variety of communications, ranging from cable video programming to private-line voice and data services, to literally thousands of earth stations of various sizes. These C-band satellites serve critical government and private needs, and there are more than millions of end-users who view video programming downlinked from GE Americom's C-band satellites to cable head-ends.

## Reallocation of the 4 GHz Band Would Be Disruptive And Would Adversely Affect Millions of Dollars of Investment

Despite the fact that the Commission is now considering whether and how to accommodate the needs of the current users of the 2 GHz band in Docket 92-9,[1] ANS, instead of awaiting the Commission's decision in this proceeding, requests the Commission to initiate a second rulemaking to remove 40 MHz of the 4 GHz band now being shared by satellite downlink operations on a co-primary basis with point-to-point microwave operators and to reallocate this on a primary basis to the latter group.[2]

Beyond the duplicative nature of ANS's request, if this portion of the 4 GHz band is reallocated, the result would be adverse to C-band satellite users. It would be particularly adverse to the considerable embedded investment in ground

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[1] Redevelopment of Spectrum to Encourage Innovation in the Use of New Telecommunications Technologies, 7 FCC 2d 1542 (1992).

[2] See Proposal for Frequency Allocation, attached to ANS's Petition for Rulemaking ("Proposal"), at 23.

antennas used by cable head-ends, since C-band satellites currently use the entire spectrum between 3.7 and 4.2 GHz, on a co-primary basis with fixed operations, for downlinking video programming to such head ends. To reallocate even 40 MHz on each side of this band exclusively for fixed operations would undermine the efficiency of high-technology C-band satellites and antennas, in both of which cable programmers have invested millions of dollars in order to make maximum use of limited spectrum. The utility of antennas currently used by cable head ends would be severely compromised, and their value decreased, if they could receive a narrower range of signals than that for which they were designed, and the fifty million households that watch C-band delivered signals would have their services reduced by such a reallocation.

ANS naively believes that this disruptive effect can be avoided if the reallocation were phased over a ten to fifteen-year period.[3] This assertion cannot withstand analysis.

For example, ANS claims, without citing any factual support, that satellite services will migrate of their own accord from C-band to Ku-band during this period, due to presumed economics of the latter service. This is incorrect, since at least GE Americom, which has both C-band and Ku-band satellites in its fleet, contemplates that it will continue in its major C-band business of delivering programming to cable head ends long beyond

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[3] Proposal at 23.

ANS's proposed transition period.[4] Instead of taking advantage of trends in the industry that only ANS can foresee, its proposal will, by limiting satellite downlink frequencies, tend artificially to drive satellite service providers away from C-band frequencies and towards Ku-band frequencies, contrary to the desire of cable head ends and video programmers, who have invested hundreds of millions of dollars into C-band technology.

Minimizing the impact of its proposal upon existing C-band satellite service users, ANS claims that "earth station owners only would be required to incur a nominal expense to receive satellites operating at higher bands."[5] Assuming arguendo that this statement is correct, it fails to address the pivotal fact that most cable head ends have already invested hundreds of millions of dollars in high-technology C-band antennas designed to receive the signals of satellites operating in a two-degree environment. C-band satellite service users made these investments in reliance upon the expectation that full use of the 3.7-4.2 GHz band for the provision of C-band downlink services would continue to be permitted. Thus, these investments will be adversely affected if, as a result of ANS's proposal, satellite service providers are driven, by denial of adequate spectrum, to use Ku-band satellites. In this regard, it is of note that,

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[4] For example, GE Americom has proposed to launch a hybrid C-band and Ku-band satellite in 1996, which will have a design lifetime of more than ten years.

[5] Proposal at 24.

contrary to the approach suggested in Docket 92-20,[6] whereby costs of relocating existing users would be paid by new users, ANS is silent as to whether it and other fixed operations that seek to use a greater share of the 4 GHz band would underwrite the costs to cable head ends and other users of relocating them from C-band to Ku-band services in a way that would be transparent to cable television viewers.

## ANS's Rechannelization Proposal Would Only Complicate Coordination of Earth Stations

ANS, which describes the existing coordination process between the co-primary users of the C-band spectrum as "problematic and relatively inefficient,"[7] would make coordination more so by its proposal to rechannel the 4 GHz band by reducing the offsets between satellite transponders and microwave systems, thereby delaying and, in some cases, frustrating the plans of cable systems to install new antennas.

The current 4 GHz channelization plan makes the maximum use of the assigned spectrum by providing for twenty-four C-band satellite downlink channels, between which are offset, by ten MHz from the center frequencies of the satellite channels, fixed operation services channels. The rechannelization proposed by ANS would reduce the offset for fixed operations to as little as five MHz on each side of the center frequencies of satellite

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[6] 7 FCC Rcd at 1545.

[7] Petition for Rulemaking at 19.

channels.

While GE Americom favors full utilization of the available spectrum, it believes that ANS's proposal, if adopted, would unduly complicate the coordination process necessary for new C-band antennas to be constructed, particularly those used by cable head ends, where interference-free operation is required. As ANS's own studies show,[8] coordination between the two co-primary uses of the 4 GHz band is already difficult, owing to the growth in both technologies. Yet, narrowing the offsets between the center frequencies used for fixed operations and those used for satellite services will make coordination even more difficult and expensive, thereby disserving the interests of users, such as cable head ends, to begin service or expand existing service as soon as possible.

## Conclusion

It would be duplicative and unnecessary for the Commission to open a new docket to address issues that it already has under active consideration. Even apart from the waste of administrative resources this would entail, ANS's proposals would adversely affect the direct customers of C-band satellite services providers and end-users, as well as the hundreds of millions of dollars in embedded investment in ground segment equipment used by cable head ends resulting from the need to accommodate the two-degree spacing plan for C-band satellites

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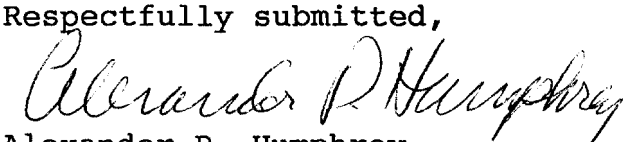
[8] Proposal at 21-23.

ordered by the Commission nearly a decade ago. In addition, ANS's channelization program will, by complicating coordination between microwave systems and cable systems, unduly delay the offering of services to C-band satellite service customers. Accordingly, ANS's petition for a rulemaking should be denied.

Respectfully submitted,



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July 2, 1992

## Certificate of Service

I hereby certify that I have, on this second day of July, 1992, served copies of the foregoing Opposition of GE American Communications, Inc. upon:

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